

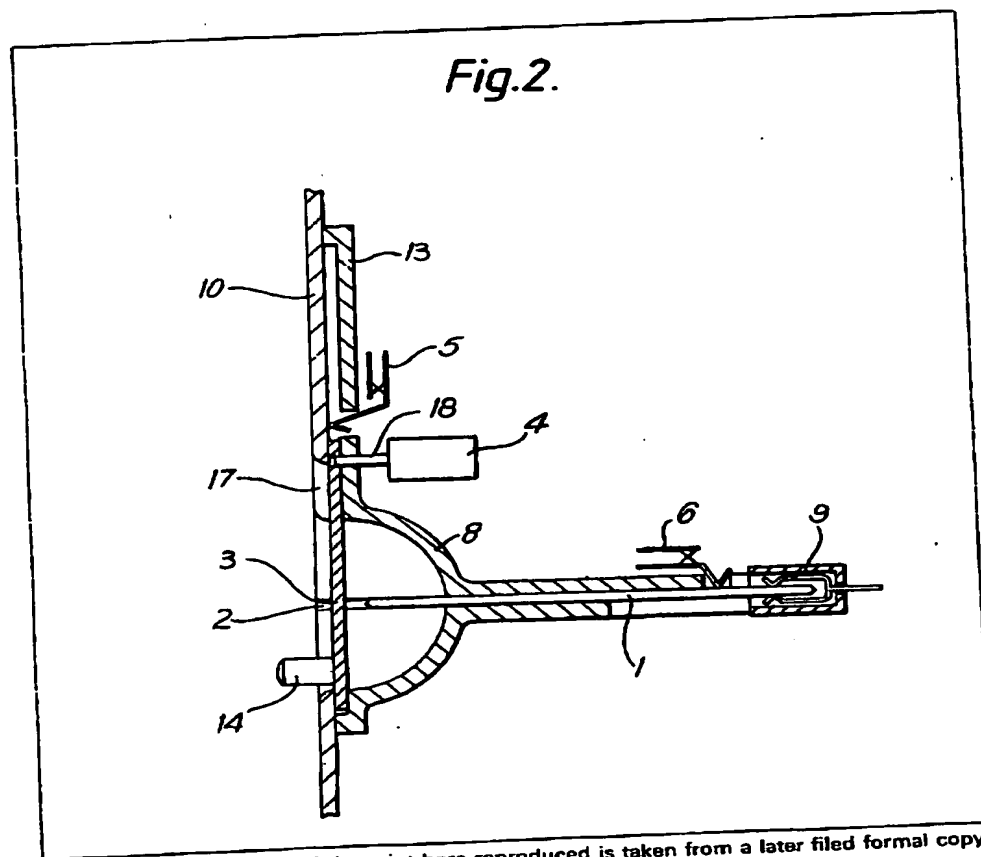
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(71) Applicant
International Standard
Electric Corporation
320 Park Avenue
New York 10022
State of New York
United States of
America
(72) Inventors
Orlin Ingilissov
Hugo Ruzic
(74) Agents
Mr S R Capsey
ITT UK Patent
Department
Maidstone Road
Folkestone
Sidcup DA14 5HT
England

(54) Credit card operated telephone

(57) A telephone has a card reader with a slot (2) into which a credit card (1) for operating the telephone can be inserted. The slot has a "lead-in" pocket (8) of roughly hemispherical shape to facilitate card insertion. The slot (2) can be closed by a slide (3) with a stud or knob (14) for manual operation, but once the card has been put in for a call the slide is locked by a stud (18) controlled by a magnet (4). At the end of the call the magnet (4) is de-energized so that the slide is released, giving access to the card.

This arrangement prevents fraudulent manipulations being carried out on the card. The card may be read holographically.



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Fig.1.

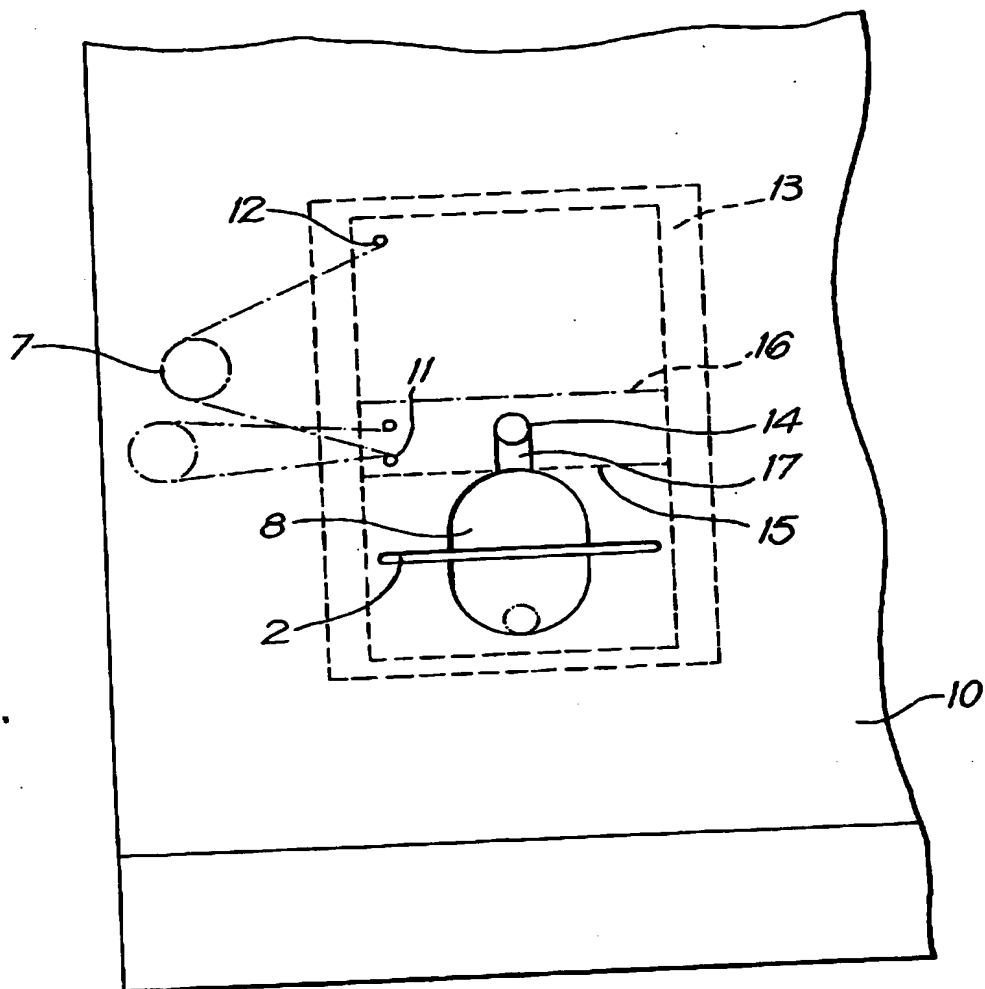
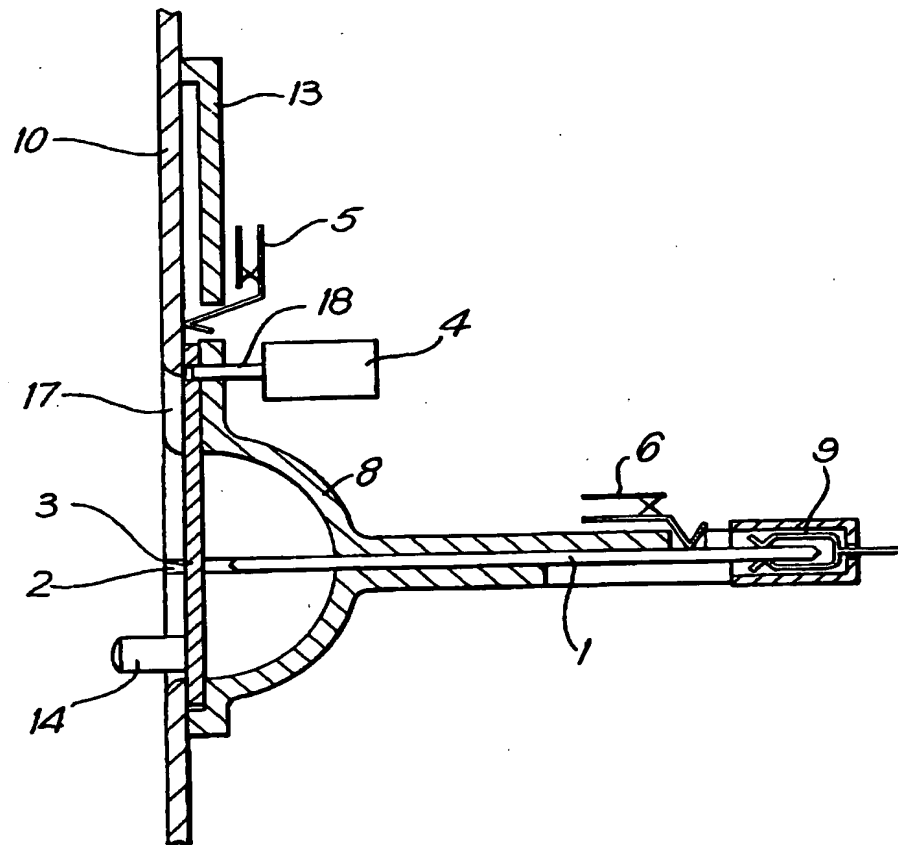


Fig.2.



SPECIFICATION

Credit card operated telephone

- 5 The invention relates to a credit card operated telephone.

- Such telephones are known in which, instead of coin slots and coin self-cashing apparatus, there is an input and reader for credit cards. A prepaid credit card is inserted into the card slot of the reader where it is read holographically by laser beams. The read value is indicated to the user on a digital display. During a telephone call, the credit on the credit card is continuously debited and the corresponding reduction is indicated on the display. When the call ends, the credit card is returned by the telephone set. The conversation is interrupted when the credit is used up.
- 20 Avoiding the use of a coin box means that there is no longer a temptation for criminals to break into the telephone, which increases the economy of public telephones. Of course, holographic scanning of the credit card needs expensive equipment, but as one portion of the credit card remains seizable in a handling pocket, fraudulent manipulations cannot be excluded, which lead to operational disturbances. It is an object of the invention, therefore, to provide a simple reader which provides some security against fraudulent or destructive manipulations—at least during a telephone call.

- According to the invention, there is provided a credit card operated telephone with a card input and reader, in the card slot of which (e.g. prepaid) credit cards can be inserted for operating the telephone, wherein the card slot can be closed by a slide which, in the case of a deposited credit card and when the slide is in the closed state, can be locked by a stopper magnet.

- In the preferred embodiment the credit card is out of the reach of the user during the call, so that manipulation is largely excluded. As long as the slide is not closed, the telephone is not ready for operation, and during the call, the slide cannot be opened as this can only occur on replacing the hand-set or when the credit is used up.

- An embodiment of the invention will now be explained with reference to the accompanying drawings, in which Fig. 1 shows part of a credit card operated telephone with the card input in a front view, and Fig. 2 shows the card input in a longitudinal section, on an enlarged scale.

- In the drawings, the housing of the telephone is indicated by the reference numeral 10. The front panel of this housing has a slot 2 for inserting a credit card 1, with the centre portion of the front panel comprising a spherically or otherwise shaped or recessed handling pocket 8. This pocket can be closed by a plate-shaped slide 3 which, by the action of

a spring 7, is held in the opened position. In the example, a torsion spring with a soft spring characteristic is used for this purpose. The spring and its arrangement can be seen in Fig. 1. While one end of the spring is attached to a stationary pin 11, the other end of the spring is connected to a pin 12 mounted to the slide 3.

- On both sides the slide runs in a guide 13. Near its lower edge, the slide has a handle member having the shape of a pin 14, thus permitting the slide to be closed by hand. In Fig. 2, the slide is shown closed, and both positions are shown in Fig. 1. The opened position can be seen from the dashlined lower edge 15 and the pin 14 which is in engagement with a slot 17, while the closed position is indicated by the dot-and-dashlined upper edge 16 of the slide. In this latter position, also the pin 14 and the torsion spring 7 are indicated by dot-and-dash lines.

- From Fig. 2, it can be seen that the credit card 1 is inserted with its front edge into a spring strip 9 where its contacting points are acted upon by the contact springs of the strip. Thus, the card is electrically connected and can be read. Moreover, the insertion of the credit card 1, causes a contact 6 projecting into its guiding plane to be actuated.

- When the slide 3 is closed, there is switched a further contact 5 projecting into its plane. When both contacts 5 and 6 as well as the switch hook are actuated, the stopper magnet 4 is energized, causing its stopper pin 18 to engage a corresponding opening of the slide, thus locking the latter in position.

- Upon de-energization of the stopper magnet 4, the slide is opened by the torsion spring 7, and the credit card can be seized in the handling pocket 8 for removal. This connection is effected either by replacing the handset at the end of the call, i.e., upon actuation of the switch hook, or whenever the credit on the card has been used up. The various functions are supervised and controlled by a computer in the telephone apparatus.

- If, in the inserted state of the credit card 1, the slide 3 is closed, but the handset is not lifted, then the credit card is read and the credit is displayed, but the slide is not locked, so that the credit card can be removed at any time. Upon letting the slide go, the display is extinguished again.

- As an alternative to the embodiment as shown, it is possible to arrange the slide 3 in a position turned by 180°. In that case, the spring may be omitted because the slide is then opened by gravity. This becomes evident when the drawing of Fig. 1 is turned upside down. The pin 14 is seated near the upper edge of the slide which, for being closed, has to be pushed in the upward direction. All other functions remain unchanged.

- Of course, the credit card input unit may also be attached to a coinbox telephone, so

that calls can be made optionally by using credit cards and/or coins.

CLAIMS

- 5 1. A credit card operated telephone with card input and reader, in the card slot of which (e.g. prepaid) credit cards can be inserted for operating the telephone, wherein the card slot can be closed by a slide which,
- 10 in the case of a deposited credit card, and when the slide is in the closed state, can be locked by a stopper magnet.
2. A telephone as claimed in claim 1, wherein said slide is opened by a spring.
- 15 3. A telephone as claimed in claim 2, wherein said spring is a torsion spring.
4. A telephone as claimed in claim 1, wherein said slide is opened by the force of gravity.
- 20 5. A credit card operated telephone, substantially as described with reference to the accompanying drawings.
6. A credit card operated telephone as claimed in claim 1, wherein said stopper
- 25 magnet operates computer-aided in dependence upon the on- or off-hook condition of the switch hook, of a switch actuated by the said credit card, and of a switch operated by said slide.

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